

New Technology Area



Debbie Franke
RTI



Background

- ◆ RTI's ETV Pilot Programs
 - Indoor Air Products (1995-2002)
 - Air Pollution Control Technology (1997-2000)
- ◆ RTI ETV Verification Center
 - Air Pollution Control Technology (2000-)
- ◆ Terrorism threats increased interest in indoor air
- ◆ Concern for in-vehicle exposure to motor vehicle emissions

Indoor Air Products Pilot

- ◆ Focus Areas
 - Organic emissions from commercial furniture
 - Filtration efficiency for general ventilation filters
 - Filtration efficiency for electronic air cleaners (used in home HVAC ducts)
- ◆ Separate stakeholder group for each focus area

Commercial Furniture

- ◆ Used large chamber to measure organic emissions from new furniture
- ◆ Protocol finalized 1999
- ◆ BIFMA International used protocol as basis for ANSI/BIFMA standard
- ◆ Air Quality Sciences uses protocol for GREENGUARD™ Registry testing
- ◆ Protocol used by California (\$60M) and EPA building (\$20M for furnishings)

General Ventilation Filters

- ◆ Protocol based on ASHRAE 52.2, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*
- ◆ Change to protocol for conditioning electrostatically charged (electret) filters
- ◆ Protocol finalized 1999
- ◆ NAFA (National Air Filtration Association) test program built on our protocol

Electronic Air Cleaners

- ◆ Two stakeholder meetings
- ◆ Discovered that silicon oxide deposit on wires affects filtration more than dust loading
- ◆ Focus on additional laboratory work with test protocol to be based on laboratory deposition of silicon oxides

Reasons to Add Indoor Air to APCTVC

- ◆ Vendor interest
- ◆ Market growth after 911
- ◆ RTI's Indoor Air Pilot ending
- ◆ RTI testing capabilities

APCTVC - Indoor Air Products

- ◆ Controls for particles, chemicals, biologicals
- ◆ Control devices for buildings (HVAC), rooms and vehicles
- ◆ Counter-terrorism devices

Next Steps

- ◆ Solicit technologies
- ◆ Establish technical panel
- ◆ Develop GVP